KEMILOVA, I.V.

Esterification of low-methylation methylcellulose with p-toluenesulfonyl chloride in pyridine medium. Zhur. Prikład. Khim. 25, 1324-6 '52. (MLRA 5:12) (CA 47 no.21:11134 '53)

NEMILOVA, I. V.

I.V. NEMILOVA

Oct. 52

USSR/Chemistry - Cellulose Esters

"Esterification of Cellulose With Benzenesulfochloride in Pyridine,"

Zhur Prik Khim, Vol 25, No10, pp 1107-1108

Cellulose esters of benzenesulfonic acid were prepd contg on the average, 2 mols of benzenesulfonic acid per mol of glucose residue. The process of esterification of cellulose with benzenesulfochloride in pyridine proceeds analogously to esterification with p-toluenesulfochloride and is accompanied by a combination of Cl with the esterification products.

263 T 52

137-58-4-7908

Translation from: Referativnyy zhurnal Metallurgiya, 1958 Nr 4, p 221 (USSR)

AUTHORS. Koshurnikov, G.S., Nemilova, I.V.

TITLE. Use of Anti-corrosive Organic Coating on Oxidized Mild Steel and Aluminum Surfaces (Primeneniye antikorrozionnogo organicheskogo pokrytiya po oksidirovannoy poverkhnosti myagkoy stali i alyuminiya)

PERIODICAL. Sb. nauchn. tr. kafedr matem., mekhan., khimii, Leningr. in-t tochnoy mekhan. i optiki, 1957, Nr 24, pp 95-102

ABSTRACT: The resistance to corrosion in a 10% HCl solution of lacquer coatings on oxidized specimens of mild steel and Al was investigated with two methods of application of 4i-T lacquer to the metals. It is shown that an electrophoretic coating of lacquer on an oxidized surface increases the corrosion resistance of specimens of Al by a factor of 70 and of steel by 25 to 30 fold. Note is taken of the small difference in the corrosion resistance of a lacquer coating applied electrophoretically and by simple immersion of oxidized Al samples.

P.S.

Card 1/1 1. Steel--Corrosion prevention 2. Aluminum--Corrosion prevention
Organic coatings--Applications

NEMINSKIY, Ye. M.

"Experimental Elastometric Investigation of the Regulation of Pressure in the Interior of the Eye of a Rabbit." Cand Med Sci, Inst of Physiology imeni I. P. Pavlov, Acad Sci USSR, Leningrad, 1954. (KL, No 5, Jan 55)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (12)
SO: Sum. No. 556, 24 Jun 55

NEMINUSHCHAYA, L.I., aspirant (Chernovtsy, ul. Kobylyanskoy, d.35, kv.1)

Changes in the intraorganic vessels of the pulmonary circulation in atelectasis caused by ligation of the lobar bronchus under experimental conditions. Nov.khir.arkh. no.1:13-15 '62.
(MIRA 15:8)

1. Kafedra gospital'noy khirurgii (zav. - prof. V.A. Khenkin) Chernovitskogo meditsinskogo instituta.

(LUNGS—BLOOD SUPPLY) (BRONCHI—SURGERY) (LUNGS—COLLAPSE)

NEMINUSHCHAYA, L. I. (Chernovtsy)

Changes in the elastic pulmonary tissue in experimental lobar atelectasis. Arkh. pat. no.6:29-35 '62. (MIRA 15:7)

1. Iz kafedry gospital'noy khirurgii (zav. - prof. V. L. Khenkin) Chernovitskogo meditsinskogo instituta (dir. - dotsent M. M. Kovalev)

(LUNGS--COLLAPSE)

NEMINUSHCHIY, V.V.

Machines for uncoiling metal rolls. Biul.tekh.-ekon.inform. no.9:13-15 '58. (MIRA 11:10)

(Machine-shop practice)

NEMINUSHCHIY, V.V.

The 2000-type reversing mill. Biul.tekh.-ekon.inform. no.1:8-9 '59. (MIRA 12:2)

(Rolling mills)

NEMINUSHCHIY, V.V.

The 2800-type semicontinuous metal-sheet rolling mill. Biul.tekh.-ekon. inform. no.2:8-10 '59. (MIRA 12:3)
(Rolling mills)

NEMINUSHCHIY, V.V.

The 900 by 2,500mm flattening mill. Biul.tekh.-ekon.inform. no.5:16-18 '59. (MIRA 12:8)
(Rolling mills)

A004/A101

AUTHOR: Neminushchiy, V. V.

TITLE: A three-stand cold-rolling mill for copper and copper alloys

PERIODICAL: Byulleten' tekhniko-ekonomicheskoy informatsii, no. 1, 1960, 10-11

TEXT: The Novo-Kramatorskiy mashinostroitel'nyy zavod (Novo-Kramatorsk Mechanical Engineering Plant) has produced and put into service two continuous "Tandem 1000" three-stand rolling mills which are the first of this type in the Soviet Union and are said to be unequalled in Europe. The mills are intended for the continuous cold-rolling of strips of 5.4-6.0 mm ingoing thickness which are reduced to 1.0-2.5 mm outgoing thickness. The width of the material being rolled is 400 - 800 mm. The strip is delivered to the mill in coils of 1 ton, the inner coil diameter is 500 - 700 mm, the outer diameter 800 - 1,000 mm. The illustration shows a schematic of the layout of the mill.

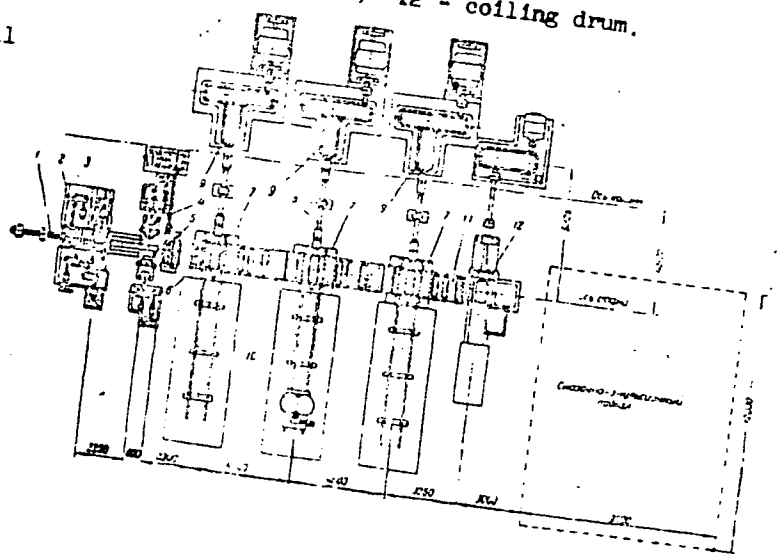
Figure:
1 - loading device; 2 - deflector of coil ends; 3 - hydraulic feed conveyer to decoiler; 4 - tapered decoiler; 5 - straightening and stretching machine; 6 - feed roller mechanism; 7 - four-high operating stands; 8 - reducer spindles; 9 - combined reducers; 10 - rake-type installation for roll changing; 11 - guide

Card 1/3

A three-stand cold-rolling mill ...

S/193/60/000/001/002/008
A004/A101

press for the straightening of the strip rear end; 12 - coiling drum.
The reated productivity of the mill is 27 - 32 coils per hour. The roll housings of the mill are of the closed type and made of cast steel. The work and backing rolls are made of special forged steel with a shore hardness of 95 - 100 and 75 - 80 respectively. The work rolls are mounted on antifriction bearings, the backing rolls on liquid friction bearings. The work rolls are 375 mm in diameter, the backing rolls are



Card 2/3

S/193/60/000/001/002/003
A004/A101

A three-stand cold-rolling mi... ...

1,000 mm in diameter. The roll barrel is 1,000 mm long. The work rolls are driven by 600 kw d-c electromotors. The roll pressure can be regulated from the control panel by actuating two adjusting screws each driven by an individual electromotor through a globoid and worm reducer. The optimum rolling conditions were found to be: rough rolling 5.7 - 3.5 - 2.8 - 2.7; rerolling 2.7 - 1.5 - 1.1 - 1.0. By changing the transmission ratio the rolling speed in the third stand was boosted to 100-200 instead of 75-100 m/min. The strip tension between the second and third stand amounts to 10-13 tons during the rough rolling, and to 3.0-8. tons during the rerolling. The decoiler with the feed mechanism does not produce a sufficient back tension. For the mills being produced at present it is planned to double the rolling speed. There is 1 figure.

Card 3/3

Z/036/63/020/003/002/003
E073/E155

AUTHOR: Neminushchiy, V.V.

TITLE: New combined rolling mill

PERIODICAL: Hutnictvi a strojírenství. Přehled technické a hospodářské literatury, v.20, no.3, 1963, 137, abstract HS 63-1681. (Metallurg. i gornorud. Prom., Kiev, no.4, 1962, 32-33)

TEXT: This four-high 400 mm dia/1000 x 1000 rolling mill was produced in the Novokramatorskyy strojírenský zavod (Novokramatorsk Engineering Works) for cold rolling non-ferrous strip, plate and sheet. The mill works in conjunction with a milling machine. This type of mill is new in the USSR for metal working, both regarding design and assembly, and rolling technology. The rolling process is fully mechanized, the basic operations being automated to enable a product of high quality to be obtained. A weight saving of 350 tons was achieved, enabling reductions in floor space, number of operators and manufacturing costs to be made.

Card 1/2

New combined rolling mill

Z/056/63/020/003/002/005
E073/E155

The mill equipment is listed, and also the technical characteristics and the technological indices [performance?]. The working of the mill is described.
2 figures.

[Abstractor's note: Complete translation.]

Card 2/2

NEMINUSHCHIY, V.V., inzh.

New mills and devices for rolling nonferrous metals and alloys. Met. i gornorud. prom. no.4:78-84 Jl-Ag '63. (MIRA 16:11)

1. Novokramatorskiy mashinostroitel'nyy zavod.

NEMIRA, K.B.

USSR/Miscellaneous - Structural material

Card : 1/1 Pub. 71 - 14/17

Authors : Vasilyev, A. F., and Nemira, K. B., Engineers

Title : Mechanized stone quarry for the construction of the Kamak hydroelectrical station

Periodical : Mekh. trud. rab. 4, 37 - 40, June 1954

Abstract : The mechanization of stone quarry work and the delivery of materials for the construction of the hydroelectric plant on the Chusova River near Kamak, are described. Drawings, illustration.

Institution : ...

Submitted : ...

NEMIRA, K.B.

VASIL'YEV, I.F., laureat Stalinskoy premii; NEMIRA, K.B., inzhener.

Mechanized stone quarry for the building of the Kama Hydroelectric Power Station. Mekh.trud.rab. 8 no.4:37-40 Je '54. (MLRA 7:6)
(Kama Hydroelectric Power Station) (Quarries and quarrying)

NEMIRA, KIRILL L'VOVICH

SHEPELEV, Aleksandr Grigor'yevich, ASHCHEPKOV, Yevgeniy Andreyevich; KOZHEVNIKOV, Savva Yelizarovich; NEMIRA, Kirill L'vovich; KITAYNIK, Abram Usherovich; SINAGOV, V.N., red.; MAZUROVA, A.F., tekhn.red.

[With our friends; impressions of Siberians visiting people's democracies] U Nashikh druzei; vpechatleniia sibiriakov, pobyvavshikh v stranakh narodnoi demokratii. [Novosibirsk] Novosibirskoe knizhnoe izd-vo, 1957. 127 p. (MIRA 10:12)

(China--Description and travel)
(Czechoslovakia--Description and travel)
(Germany, East--Description and travel)

NEMIRA, V. G., kand. med. nauk; NOVOZHILOV, D. A., prof.

Vitamin requirement of children in the rehabilitation period following poliomyelitis. Ortop., travm. i protez. 22 no.8:34-36 Ag '61. (MIRA 14:12)

1. Iz Gosudarstvennogo nauchno-issledovatel'skogo detskogo ortopedicheskogo instituta im. G. I. Turnera (dir. - prof. M. N. Goncharova)

(POLIOMYELITIS) (VITAMIN METABOLISM)

NEMIRA, V.L., Eng.

Volga-Don Canal

Installation work [illegible] Volga-Don [illegible] Canal. Gidr. stroi. 21 No. 7, 19[illegible]

9. Monthly List of Russian Accessions, Library of Congress, December 19[illegible] ~~1953~~, Uncl.

NEMIRA, Y. V.

ABS. JOUR. : RZhBiol., No. 1958, No.

ORIG. PUB. : [illegible] nauchno-t [illegible] Omsk. Sibirsk. n.-i. vet. in-t, [illegible]

ABSTRACT : It was shown that the vaccines from [illegible] did not produce a good effect in preventing the [illegible] of brucellosis. In the [illegible] course of brucellosis of cattle, the vaccine from strain No. [illegible] is more effective.-- From the author's summary.

CARD: 1/1

NEMIRO, A. A.

35163. Pryamye voskhozhdeniya 423 Zvezd Po Nablyudeniyam V Pulkovskoy Observatorii V 1936-1941 GG. Trudy G.-Lav. Astron. Observatorii V Pulkove, Seriya II, T. LXIII, 1949, S. 127-204.

SO: Letopis' Zhurnal'nykh Statey, Vol. 48, Moskva, 1949

NEMIRO, A. A.

37171. Vsesoyuznaya astrometricheskaya konferentsiya 15-17 Dekabrya 1948 G. (Leningrad). Astron. Zhurnal 1949, Vyp. 6, s. 375-77.

SO: Letopis' Zhurnal'nykh Statey, Vol 7, 1949

M.F.Ife, A. ...

Sovetskaia nauka o proiskhozhdenii zemli i planet /Soviet science on the origin of the earth and the planets/. Leningrad, "Znanie", 1953. 36 p.

SO: Monthly List of Russian Accessions, Vol. 7 No. 2 May 1954.

Nemiro, A. A.

USSR/ Astronomy - Conferences

Card 1/1 Pub. 124 - 13/45

Authors : Zverev, M. S., Meml. Corresp. of Acad. of Sc. USSR., and Nemiro, A. A.

Title : The latitude conference in Rome

Periodical : Vest. AN SSSR 7, 64-65, Jul 1955

Abstract : [illegible] the real point of the conference was the proposal made by Soviet astronomers on the establishment of an International Organization for the study of motions of terrestrial poles and changes in geographical latitudes. One USSR reference (1955).

Institution : .....

Submitted : .....

NEMIRO, A.A.

Errors of the $\Delta\alpha$ type in FK3 and their effect on the determination of irregularity in the earth's rotation. Astron.tsir. no.159:7-9 My'55. (MLRA 8:12)
(Stars--Catalogs) (Earth--Rotation)

Nemiro, A.

ZVEROV, M.; NEMIRO, A.

International astronomical conference on the observation of beacon stars for AGK3. Astron.tsir. no.159:31-32 My'55. (MIRA 8:12)
(Stars--Catalogs)

Name: NEMIRO, Andrey Antonovich

Dissertation: Investigation of the results of absolute determinations in direct ascent of stars at Pulkovo

Degree: Doc Phys-Math Sci

Affiliation: [Not indicated]

Defense Date, Place: 11 May 56, Council of Main Astronomical Observatory, Acad Sci USSR

Certification Date: 9 Mar 57

Source: BMVO 13/57

NEMIRO, A.

International conference on astrometry. Nauka i zhizn' 23 no.11: 38 N '56. (MLRA 9:11)
(Pulkovo--Astrometry--Congresses)

KHMIRO, A.A., kandidat fiziko-matematicheskikh nauk.

Observation of bright stars; the astrometrical conference in Pulkovo. Vest.AN SSSR 26,no.11:108-110 N '56. (MLRA 9:12)
(Pulkovo--Astrometry--Congresses)

NEMIRO, A.A.; PAVLOV, N.N.

The necessity for taking into account the $\Delta\frac{\alpha}{\alpha}$ -type corrections of the FK3 in the time service [in Russian and English]. Astron. zhur. 33 no.3:404-409 My-Je '56. (MLRA 9:10)

1.Glavnaya astronomicheskaya observatoriya Akademii nauk SSSR.
(Stars--Catalogs)

NEMIRO, A...

International conference on astronomy. Astron.tsirk.no.173:24-25 O '56. (MLRA 10:1)
(Pulkovo--Astronomy--Congresses)

NEMIRO, A. A.and PAVLOV, N. N.,

"Systematic $\Delta\alpha$ errors of the FK3 Type and Their Influence of the Determination of Time," The International Association of Geodesy; Abstracts of the Reports of the XI General Assembly of the International Union ofGeodesy and Geophysics, Moscow, Izd-vo AN SSSR, 1957, 63 p.

The comparison of fundamental and new absolute catalogues with FK3 permits findings in the latter considerable systematic errors of the type $\Delta\alpha$. Tables give comparative values for FK3 with Nikolayev (N30), GC and Pulkovo (Pu 1) with respect to $\Delta\alpha$. The observed errors have a tangible effect on the correction of time. It is pointed out that Washington determinations of time corrections are distinguished by their high accuracy.

MEMIRO, A.A.

Deriving right ascension corrections to the Fundamental Catalog from time-service observations. Izv.GAO 20 no.4: 33-40 '57. (MIRA 13:4)
(Stars--Catalogs) (Time) (Astrometry)

NEMIRO, A.A.

System of the fundamental catalog of right ascensions of the Pulkovo "supplementary" stars. Izv.GAO 21 no.1:30-36 '57. (MIRA 13:4)

(Stars--Catalogs)

NEMIRO, A.A., doktor fiz.-matem.nauk, otv.red.; FROLOV, A.A., red.izd-va; TVERITINOVA, K.S., tekhn.red.

[Transactions of the 13th Astrometrical Conference of the U.S.S.R.] Trudy Vsesoiuznoi astrometricheskoi konferentsii. Leningrad, Izd.Akad.nauk SSSR, 1958. 92 p. (MIRA 12:6)

1. Vsesoyuznaya astrometricheskaya konferentsiya. 13th, Pulkovo, 1956.

(Astrometry)

NEMIRO, A.A.

Studying results of absolute determinations of right ascensions of stars at Pulkovo. Trudy Glavnoi astronomicheskoi observatorii Ser.2 71:67-187 '58. (MIRA 12:6)
(Stars--Catalogs)

NEMIRO, A.A., doktor fiziko-matem.nauk, otv.red.; BEDIN, V.S., red.

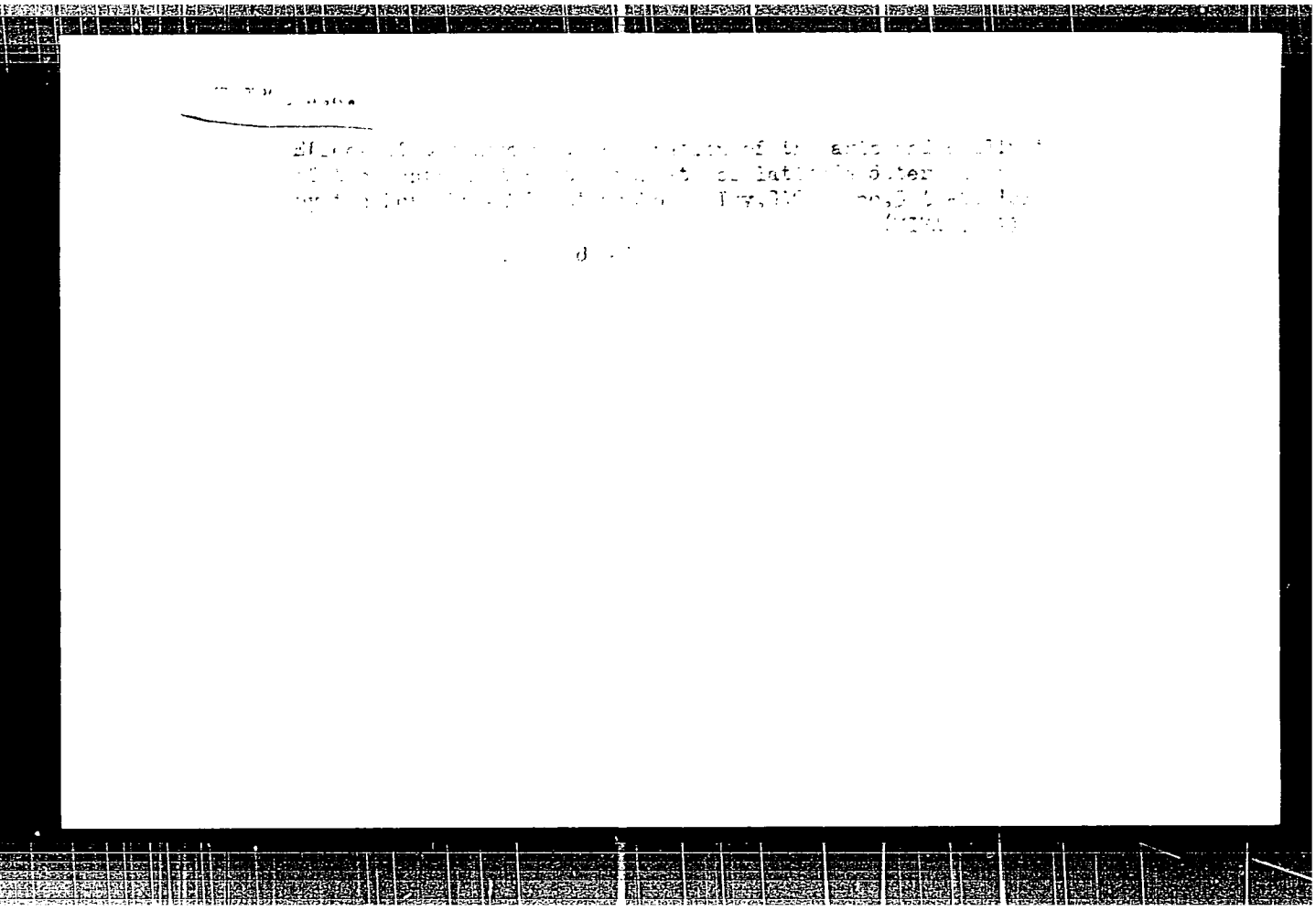
[New instruments and methods in the meridian astrometry; reports made at the meeting of the Commission No.8 (Positional Astronomy) during the 10th Congress of the International Astronomical Union in Moscow in August 1958 ("discussion on instruments")] Novye instrumenty i metody v meridiannoi astrometrii; doklady, prochitannye na zasedanii Komissii no.8 (pozitsionnoi astronomii) vo vremia X s"ezda Mezhdunarodnogo astronomicheskogo soiuza v Moskve v avguste 1958 goda ("instrumental'naia diskussiia"). Moskva, Izd-vo Akad.nauk SSSR, 1959. 97 p. [Parallel texts in Russian and English, French, or German.] (MIRA 13:4)

1. Pulkovo. Glavnaya astronomicheskaya observatoriya.
(Transit circle)

NEMIRO, A.A.

Design of a new transit instrument for absolute determinations of right ascensions of stars. Izv. GAO 22 no. 1:3-20 '60.
(MIRA 13:12)

(Transit instruments)



NEMIRO, A.A.

Computation of tg δ and sec δ needed for the reduction of χ observations. Izv.GAO 23 no.1:111-116 '62. (MIRA 16:12)

L 40824-65 EWT(1)/EWG(v) Po-4/Pu-5/Pq-4/Pac-4/Pae-2 GS/GW
ACCESSION NR: AT5009179 UR/0000/63/000/000/0087/0099

35
B+1

AUTHOR: Nemiro, A. A.

TITLE: Determination of the zero points of catalogues and parameters of the earth's orbit from meridian observations of the sun

SOURCE: Astrometricheskaya konferentsiya SSSR, 15th, Pulkovo, 1960. Trudy. Moscow, Izd-vo AN SSSR, 1963, 87-99

TOPIC TAGS: astrometry, earth orbit, orbital element, sun, moon, ephemeris time

ABSTRACT: The author presents a comparison of the Bessel, Airy and Newcomb methods for the determination of the zero points of catalogues. It is shown that only the components ofobserved deviations of the sun in latitude are used in the Bessel and Airy methods. The advantages of these methods when reducing solar observations, as compared to that of Newcomb, are pointed out for the case when observations are unevenly distributed in time over an annual cycle. It is noted that the three above-mentioned approximate methods are losing their applicability as a result of the development of present-day computing methods. Simultaneous determination of the corrections of the zero points of catalogues and corrections of the earth's orbit is recommended. The weights of the determined corrections are

Card 1/3

given for three different cases of distribution of solar observations over an annual cycle: 1) a uniform distribution; 2) nine mean monthly values for the spring-summer-autumn period; 3) six mean monthly values for the spring (February, March, April) and autumn (August, September, October) periods. The weights obtained are varied for two other cases of the solution of the equations, related to observations of α and δ (simultaneous and separate). It is recommended that the correction to the initial longitude of the sun (ΔL_0) and to the mean diurnal motion (Δn) be excluded from the solution because their inclusion essentially lessens the weight of the correction to the equinox ΔA and to the longitude of the perihelion of the earth's orbit Δn. L_0 and n are related to ephemeris time time and therefore can be derived with sufficient accuracy from position observations of the moon. It also is not necessary to include corrections for astronomical flexure Δb and refraction Δp in the simultaneous solution (for α and δ) because this considerably reduces the weight of the correction $\Delta \delta_0$ to the equator in the catalogue. It is shown that flexure should be determined separately. The desirability of a uniform distribution of solar observations during the year is noted. Therefore, it is recommended that, in addition to the solar observations made in the European part of the SSSR, positional observations of the sun be made in the Far East where the sky is clear during most of the autumn-winter months. Orig. art. has: 26 formulas, 2 tables and 1 figure.

L 40824-65
ACCESSION NR: AT5009179

0

ASSOCIATION: None

SUBMITTED: 03Apr63 ENCL: 00 SUB CODE: AA

NO REF SOV: 011 OTHER: 004

Card 1/1

L 43542-65 EWU(v)/EWT(1) Pe-5/Po-4/Pq-4/Pac-4/Pae-2 GW/GS

UR/0000/63/000/000/0132/0142

ACCESSION NR: AT5009182

AUTHOR: Zverev, M.S. (Corresponding member AN SSSR); [illegible], A.A.

TITLE: Observation program of the Soviet astrometric expedition to the southern hemisphere

SOURCE: Astrometricheskaya konferentsiya SSSR. [illegible], Pulkovo, [illegible]. Trudy. Moscow. Izd-vo AN SSSR, [illegible], [illegible]

TOPIC TAGS: [illegible] star catalogue, funda- mental star, [illegible]

ABSTRACT: The problems involved in compiling a Catalogue of Faint Stars are discussed in detail, particularly the necessity of making the necessary observations in the southern hemisphere. The work already done by southern hemisphere observatories is discussed, as are the repeated resolutions passed at successive International Astronomical Union congresses, often on the recommendation of Soviet astronomers, calling for an expansion of such observations (the principles of compilation of such a catalogue require observations of each star, galaxy and minor planet at not less than 3 observatories). As a result of an agreement reached between the Soviet Academy of Sciences and the Chilean government after a visit of the Rector of Santiago University to the Soviet Union in the

Card 1/3

L 43512-65

ACCESSION NR: AT5009182

spring of 1960, an astrometric expedition is to be sent to Cerro Calan Observatory in Chile; specialists from the Pulkovskaya Observatoriya (Pulkovo Observatory) will work there in close collaboration with Chilean astrometrists. The following work will be done in the field of meridian astrometry. 1. Absolute determination of the right ascensions of bright and faint fundamental stars using a large transit instrument. 2. Absolute determination of the declinations of these same stars using a vertical circle. 3. Observations of the sun and major planets, especially Mercury, Venus and Mars, using a large transit instrument and a meridian circle. 4. Differential connection of the system of right ascensions of stars in the northern and southern sky using a transit instrument with a broken telescope. 5. Differential determination of the coordinates of faint and bright reference stars using a meridian circle. The methods to be used in implementing this program are discussed. Particular attention is given to possible methods which can be used for absolute determination of the azimuth of the large transit instrument which is to be employed. The meridian circle will be used in observing about 11,500 faint reference stars and 2,000 bright stars in the zone -25° to -90°. The meridian instrument available at Cerro Calan is a Repsold instrument with an objective diameter of 19 cm, a circle 75 cm in diameter and with 4' graduations. Plans call for a double-meniscus (Maksutov) astrograph in making photographic observations of southern galaxies. Orig. art. has: 1 table.

Card 2/3 Submitted 06Aug63

MIKHAYLOV, A.A.; NEMIRO, A.A.

Symposium on astronomy, held in Paris. Vest. AN SSSR 33 no.10: 73-74 O '63. (MIRA 16:11)

1. Chlen-korrespondent AN SSSR (for Mikhaylov).

NEMIRO, A.A.

Important problems of present-day astronomy; conference on astronomy in Kazan. Vest. AN SSSR 33 no.11:121-122 N '63. (MIRA 17:1)

ACC NR: AP7007604 SOURCE CODE: UR/0030/66/000/010/0096/0097

AUTHOR: Nemiro, A. A. (Doctor of Physico-Mathematical Sciences)
ORG: none
TITLE: Seventeenth All-Union Astrometric Conference
SOURCE: AN SSSR. Vestnik, no. 10, 1966, 96-97
TOPIC TAGS: astronomic conference, star, lunar surface, stellar parallax
SUB CODE: 03
ABSTRACT:

The Seventeenth All-Union Astrometric Conference was held at Pulkovo during the period 31 May-3 June. It was attended by more than 100 representatives from the USSR, German Democratic Republic, Mongolia, Rumania and Yugoslavia. D. D. Pologhentsev emphasized the need for a close relationship between the coordinate systems for moderately faint and bright stars. This same theme was the subject of a report by M. S. Zverev, presently head of the Soviet Astrometric Expedition to Chile, which has discovered that there are large systematic errors in the coordinates and motions of southern stars. V. V. Podobed reported on results of investigation of a new meridian circle developed in the USSR and set up at the State Astronomical Institute. This instrument makes it possible to broaden considerably the range of investigations by Moscow astrometrists, particularly in respect to absolute determinations of star coordinates. A. A. Nemiro and Yu. S. Streletskiy told of the construction of a large transit instrument by Pulkovo Observatory and the Lenin-

Card 1/2

ACC NR: AP7007604

grad Optical-Mechanical Combine; late this year it will be sent to Chile for carrying out absolute determinations of the right ascensions of stars of the southern sky. G. K. Taimmerman, senior astronomer of the Nikolayevskaya Observatory, proposed a new original design for a vertical circle which will make possible daytime observations of rather faint stars -- to the 4th and 5th magnitudes. A. N. Deych told of current problems being solved using astrographs with a long focal length. These problems include determination of star parallaxes, which is related to determination of the distance scale in astronomy and the detection of faint stars of the 15th-17th magnitude with appreciable proper motions and therefore situated at relatively short distances from the sun. Reports by M. A. Sosnina and other dealt with long-focal length astrographs being constructed at Pulkovo and Goloseyevo. The first of these is intended for star observations and the second for detailed study of the lunar surface. [JPRS: 39,180]

Card 2/2

NEMIRO, L.K. [Nemyro, L.K.]

Pneumatic extension pad for the pressing of seams, bound edges, and lapels. Leh. prom. no.4:56 (-D '56.

NEMIRO, Ye.A. (Riga, ul. Lenina, d.138, kv.23); TSEPLITE, R.K. (Riga, ul. Palasta, d.8, kv.4)

A rare form of peripheral lung cancer [with summary in English]. Vop.onk. 3 no.6:740-742 '57. (MIRA 11:2)

1. Iz Rizhskogo mezhrayonnogo onkologicheskogo dispansera (glav. vrach - A.P.Bezverkhaya) i kliniki fakul'tetskoy khirurgii (zav. - chlen-korrespondent AMN SSSR prof. P.I.Stradyn') Rizhskogo meditsinskogo instituta dir. - chlen-korrespondent AMN SSSR prof. E.M. Burtniyek)

(LUNG NEOPLASMS, case reports
multiple metastases to bones & organs)
(BONE AND BONES, neoplasms
metastatic from lungs)

USSR / General Problems of Pathology. Tumors. Comparative Oncology. Tumors of Man. U

Abs Jour: Ref Zhur-Biol., No 22, 1958, 102630.

Author : Nemiro, E. A.; Seplite, R. K.
Inst : Not given.
Title : A Rare Type of Peripheral Lung Cancer.

Orig Pub: Vopr. onkologii, 1957, 3, No 6, 740-742.

Abstract: Description of a case of pulmonary carcinoma in a 34-year-old woman. The disease followed a course of rheumatoid arthritis. Roentgenologically, a clear spherical shadow 4cm x 4cm was discovered in the lower lobe of the right lung; it increased gradually; periostosis and osteoporosis were noted along the entire length of the long and short tubular bones. The tentative diagnosis was hydatic cyst of the lung; but, on autopsy, an undifferen-

Card 1/2

USSR / General Problems of Pathology. Tumors. Comparative Oncology. Tumors of Man. U

Abs Jour: Ref Zhur-Biol., No 22, 1958, 102630.

Abstract: tiated carcinoma of the lower lobe of the right lung with multiple metastases into various organs was discovered.

Card 2/2

VITENBERG, G.P.; NEMIRO, Ye.A.

Report on the Fourth Latvian Republic Conference of Oncologists and the Third Out-ofTown Session of the Institute of Oncology of the Academy of Medicine of the U.S.S.R. Vop.onk. 5 no.6:756-759 '59. (MIRA 12:12)

(ONCOLOGY--CONGRESSES)

NEMIRO, Ye. A.

Current problems of the diagnosis and differential diagnosis of peripheral lung cancer. Vop. klin. lech. zlok. novoobraz. 7:147-159 '61.

1. Kafedra rentgenologii i radiologii (zav. - dots. A. L. Polyakov) Rizhskogo meditsinskogo instituta (dir. - prof. V. A. Kal'berg).

(LUNG NEOPLASMS diag)

NEMIRO, Ye.A. (Riga)

Clinical aspects and the differential diagnosis of celomic cysts of the pericardium. Klin.med. 40 no.5:47-52 '62.
(MIRA 15:8)

(PERICARDIUM--TUMORS) (CYSTS)

NEMIRO, Ye.A. (Riga)

Clinical aspects of intrathoracic neurogenic tumors. Klin.med. 40 no.10:47-53 O '62. (MIRA 15:12)

1. Iz kliniki fakul'tetskoy khirurgii (zav. - dotsent E.T. Ezeriyetis) Rizhskogo meditsinskogo instituta (dir. - prof. V.A. Kal'berg)i rentgenologicheskogo otdeleniya respublikanskoy klinicheskoy bol'nitsy imeni P.Stradynya (glavnyy vrach L.G. Shcherbakova).

(CHEST—TUMORS)

ALISOV, P.A., general-mayor meditsinskoy sluzhby, prof.; BOLDASOV, V.K., kand. med. nauk; KAZANSKIY, A.A., polkovnik meditsinskoy sluzhby, doktor med. nauk; NEMTSO, Ye.A.; TARASOV, V.I., kand. med. nauk; MEBEL', B.D., kand. med. nauk

Experience in clinical and laboratory diagnosis of acute respiratory diseases in mass. voen.-med. zhur. no. 1:49-53 Ja '66 (MIRA 19:2)

NEMIROV, A.V.

Stand for assembling boiler hoops. Mats. i izobr. predl. v stroi. no.7:101-102 '58. (MIRA 11:12)
(Boilers)

NEMIROV, B.S., inzh.

Efficient method of keying the rod of Admiralty-pattern anchors. (MIRA 15:3)
Sudostroenie 28 no.2:46 F '62.
(Anchors)

NEMIROV, G. V.

Nemirov, G. V.

"Sorption on Cellulose from Aqueous Solutions of Certain Salts." Min Higher Education USSR. Rostov State U imeni V. M. Molotov. Chair of Physical and Colloid Chemistry. Rostov na Donu, 1955. (Dissertation for the Degree of Candidate in Chemical Science)

So: Knizhnaya letopis', No. 27, 2 July 1955

NEMIROV, G. V.

"The Sorption on Cellulose from Aqueous Solutions of Some Salts Concerned Special Problems of Adsorption of Electrolytes and the Properties of Adsorbents."

report presented at the Section on Colloid Chemistry, VIII Mendeleyev Conference of General and Applied Chemistry, Moscow, 16-23 March 1959.
(Koll. Zhur. v. 21, No. 4, pp. 509-511)

NEMIROV, G.V.; OSTRIKOV, M.S.

Effect of cellulose on the hydration of salts. Uch.zap. RGU 41: 161-172 '58. (MIRA 13:1)
(Salts) (Hydration) (Cellulose)

OSIPOV, O.A.; PANINA, M.A.; KASHIRENINOV, O.Ye.; NEMIROV, G.V.; SHELOMOV, I.K.

Dielectric constant of binary liquid systems consisting of polar components. Zhur.ob.khim. 31 no.10:3153-3160 O '61. (MIRA 14:10)

(Systems (Chemistry)) (Dielectrics)

MARCHENKO, V.G.; TAUBE, A.M., prof.[deceased]; NEMIROV, I.A.; SHMID, V.A.; MOROZOVSKIY, N.G., kapitan dal'nego plavaniya kontr-admiral, red.; BORISOV, V.V., red.; BALASHOVA, M.V., red.-leksikograf; BERDNIKOVA, N.D., red.-leksikograf; SAVIN, B.V., led.-leksikograf; KUZ'MIN, I.F., tekhn. red.

[English-Russian naval dictionary. Approximately 40, 000 words and phrases]Anglo-russkii voenno-morskoi slovar'. Pod red. N.G. Morozovskogo. Okolo 40,000 slov i sochetanii. Moskva, Voenizdat 1962. 851 p. (MIRA 15:12)
(Naval art and science—Dictionaries)
(English language—Dictionaries—Russian)

119-58-4-4/15

AUTHOR: Nemirov, L.L.

TITLE: A New Induction Coil for the Differential Manometer DPES-T
(Novaya induktsionnaya katushka dlya difmanometra DPES-T)

PERIODICAL: Priborostroyeniye, 1958, Nr 4, pp. 10-12 (USSR)

ABSTRACT: The old manometers DPES with remote indication on a separate device - the wiring circuit employed being based upon the principle of the balanced induction bridge - had the following disadvantages:

1.) Measuring errors in the remote indicating instrument amounted to up to ± 2.5%.
2.) Transmission length was not allowed to be more than 500 m because of the necessary resistance of 4 ohm.
3.) They had a number of mechanical faults (high total weight, large dimensions).

These drawbacks were eliminated by the newly developed induction coil and by the employment of a new wiring scheme. The latter is a differential - transformer - compensation scheme.
The following technical data are given for the new coil:

Card 1/2

A New Induction Coil for the Differential Manometer 119-58-4-4/15

Number of windings of primary coiling	3100	(PEV -0.27 = type of wire used)
Number of windings of secondary coiling	2 x 500 x 2	(PEV -0.27)
Feed voltage of primary coiling	10	V
Feed current of primary coiling	0.120	A
Piston way	30.5	mm
Interspace for piston	1	mm
Weight of coil in kg	0.220	
Measurements of coil	Ø 125	mm
Length of cable for remote indication	1000	m

There are 3 figures and 2 tables.

Card 2/2

SOV/119-59-3-6/15

P(2), 9(6)
AUTHOR: Nemirov L. L., Engineer

TITLE: Tension-Compression Meter With a Force Compensation (Tyagona-poromer s kompensatsiyey po sile)

PERIODICAL: Priborostroyeniye, 1959, Nr 3, pp 15-17 (USSR)

ABSTRACT: In this paper the circuit diagram and the component parts of this device are described and the basic steps in its calculation are discussed. In this device the pressure to be measured is converted into a proportional deflection of the pointer on the scale of the device and into an a.c. signal (50 cycles). The sensitivity of this device is better than 0.1%, the error of measurement amounting to ± 0.5% of the deflection. The maximum time required for one measurement is 4 - 5 sec. A "silfon" of stainless steel can be used as a sensitive element of this device. The force compensation is accomplished by a two-phase induction motor of the type RD-09. The first figure shows the principal circuit diagram of the instrument, by which the principle of operation of the device is explained. Measurements carried out according to the principle of compensation offer some advantages which are due to the performance of the sensitive element under

Tension-Compression Meter With a Force Compensation SOV/11[illegible]-5[illegible]-3-6/15

very small displacements: 1) In the neighborhood of a certain point of the characteristic curve its non-linearity does not affect the performance of the device. 2) The influence of the hysteresis is also reduced to a minimum. 3) If the displacements are very small (almost equal to zero), the sensitive elements can be used for a much longer time. In the next section of this paper a detailed discussion of the static calculation of the device is presented. The kinematic circuit of the device is illustrated in a diagram. In the last section the required stiffness of the "silfon" is approximately evaluated. If small pressures are to be measured, sensitive elements with a considerable stiffness ($\sim$ 500 g/mm) can be used as such a stiffness guarantees a high stability of the element with respect to time. There are 3 figures 1 table and 1 English reference.

Card 2/2

S/096/62/000/012/001/003
E194/E135

AUTHORS: Komm, P.S., Lapuzin, V.S., Nemirov, V.S., Fridman, A.Ye., and Shcherbina, S.A. (Engineers)

TITLE: The control system of a 50 MW gas turbine of the Khar'kov Turbine Works

PERIODICAL: Teploenergetika, no.12, 1962, 37-44

TEXT: The 50 MW gas turbine type GTU-800 (GTU-800) is of open cycle design, burns natural gas at a pressure of 22 atm, and provides heat for district heating. The h.p. combustion chamber, turbine, compressor and l.p. compressor and starting motor are on one shaft. On a second shaft, side by side with the first, are the l.p. combustion chamber, turbine, and m.p. compressor, alternator and geared exciter/starter motor. The first shaft speed is variable and at full-load is 3600 r.p.m; the second shaft runs at a constant speed of 3000 r.p.m. The gas distribution arrangements are described. The control arrangements, described in detail, consist of two main systems; speed control and anti-surging control; in addition there are auxiliary systems for run-up control, overspeed protection on dropping load, excess temperatur

The control system of a 50 MW gas ...

protection and others. The speed control pick-up is a low output centrifugal pump (impeller) on the l.p. shaft; there is a two-stage amplification with hydraulic positive and negative feedback. An accelerator (differentiator) is provided to make the speed governor operate quickly. The anti-surging control is very similar in principle to the speed governor and also uses two-stage amplification; the pick-up operates according to the speed of the h.p. shaft instead of according to the compressor air flow and pressure, which is the more usual. The operation of the system is explained and the construction of the various valves and other components is illustrated diagrammatically. The run-up controller takes over when the starter motor has run the l.p. shaft up to 1200-1400 r.p.m. and automatically brings its speed up to 2750 rpm, when the speed governor takes over. Auxiliary circuits which prevent false starts when the electrical load is thrown off are described. The temperature controller uses as pick-ups low inertia thermocouples in the h.p. and l.p. turbine exhaust ducts; they commence to operate if the temperature rises 15 °C above the normal value and shut down the set at 25 °C excess temperature.

Card 2/3

The control system of a 50 MW gas ...

The overspeed governor is independent of the main speed governor and cuts off the fuel supply. Selection of the control arrangements is discussed and design principles are explained, with particular reference to dynamic stability. Transient process performance curves of the control system show that it is stable.
There are 9 figures.

ASSOCIATION: Khar'kovskiy turbinnyy zavod
(Khar'kov Turbine Works)

Card 3/3

SHUBENKO-SHUBIN, L.A.; FRIDMAN, A.Ye., inzh.; NEMIROV, V.S., inzh.

About Professor I.I. Kirillov's book "Automatic control of steam and gas turbines." Energomashinostroenie 9 no.7:42-43 Jl '63. (MIRA 16:7)

1. Chlen-korrespondent AN UkrSSR (for Shubenko-Shubin).
(Turbines) (Automatic control)
(Kirillov, I.I.)

ACCESSION NR: AP4034656 S/0096/64/000/005/0062/0067

AUTHOR: Nemirov, V. S. (Engineer)

TITLE: On some criteria of the work quality of hydraulic servomotors with cut off valves

SOURCE: Teploenergetika, no. 5, 1964, 62-67

TOPIC TAGS: hydraulic device, cutoff valve, equilibrium condition, servomotor / VKT 100 servomotor turbine, L turbine oil

ABSTRACT: The author studied the performance of hydraulic servomotors with cutoff valves, and obtained quantitative estimates of their rigidity. Investigations were made on the appearance of 'slip' in a linear spring servomotor of the type VKT-100. For this case the conditions for unstable equilibrium were obtained as given by the expression $\frac{dR}{dh} < 0$ and $\left|\frac{dR}{dh}\right| > F|\operatorname{tg}\gamma| + c$, where R is the external load on the piston of the servomotor, h the stroke of the servomotor, c the rigidity of the spring, F the effective area of the piston, and tan γ = - dp/dh (p is the oil pressure under the piston). Experiments were also performed on such a servomotor with a cutoff valve provided with special loading devices.

Card 1/2

ACCESSION NR: AP4034656

The valve was 60 mm in diameter and had a hydraulic return coupling. For the pressure measurements, a 0.5-class manometer was used for static experiments and a mercury differential manometer was used for dynamic measurements. The working fluids used were water and brand L turbine oil. The plots of K versus h showed good agreement with the theory. Orig. art. has: 6 formulas, 9 figures, and 3 tables.

ASSOCIATION: Khar'kovskiy turbinnyy zavod imeni Kirova (Kharkov Turbine Factory)

SUBMITTED: 00 ENCL: 00

SUB CODE: PR NO REF SOV: 000 OTHER: 000

Card 2/2

NEMIROV, V.S., inzh.; [illegible]

Some quality [illegible] of [illegible] steam turbines. [illegible]
(MIRA [illegible])

NEMIROV, V.S., insh.; YAVORSKIY, V.Yu., insh.

Outflow of water and turbine oil through short narrow ring slots.
Energomashinostroenie 11 no.7:5-8 Jl '65. (MIRA 18:7)

SOV/53-59-8-16734

Translated from: Referativnyy Zhurnal Fizika, 1959, Nr 8, p 244 (USSR)

AUTHORS: Fialko, Ye.I., Peregudov, F.I., Nemirova, E.K.

TITLE: Preliminary Results of Radar Observations of Meteors at λ -10 Meters

PERIODICAL: Byul. Komis. po kometam i meteoram Astron. Soveta AN SSSR, 1958, Nr 2, pp 39-43

ABSTRACT: The article describes the results of radar observations of meteors, carried out in September 1956 with the aid of a meteor radiolocator of the "TPI-1" type. The apparatus had the following parameters: wave-length 10 m; pulse power of the transmitter $\sim$ 100 kw; pulse duration 5 μ sec; frequency of pulse repetition 300 and 600 pps; sensitivity of the receiver $\sim 10^{-13}$ -- 10^{-14}w; transmitting and receiving antennas were horizontal half-wave oscillators, situated at a height of $\lambda/3$ above the ground. The article provides graphs of the daily measurement of meteoric activity, of distributions according to distance and duration and of the relation between the hourly number of meteors and the power of the transmitter.

V.A. Naslednik

Card 1/1

SOV/58-59-8-18736

Translated from: Referativnyy Zhurnal Fizika, 1959, Nr 8, p 244 (USSR)

AUTHOR: Nemirova, E.K.

TITLE: Some Characteristics of the Resonance Reflection of Radio-Waves From Meteor Traces

PERIODICAL: Byul. Komis. po kometam i meteoram Astron. Soveta AN USSR, 1958, Nr 2, pp 46-49

ABSTRACT: The article investigates resonance phenomena during the reflection of radio-waves from meteor traces. With the help of the Kaiser-Kloss theory of reflection the frequency dependences of the reflection coefficient in the vicinity of resonance are calculated for traces with sharply defined limits. The amplitude-frequency characteristics of an expanding trace are cited. It is shown that resonance phenomena can lead to a variation in the amplitude of the reflected signal and of the phase of the high-frequency filling and, in the case of a sufficiently broad-banded signal, can influence the form of the envelope of reflected pulses It is shown

Card 1/2

Some Characteristics of the Resonance Reflection of Radio-Waves From Meteor Traces

that the enumerated phenomena can have a bearing upon the determination of the co-ordinates and other characteristics of the meteor, and can also be used for determining such quantities as the initial diameter of the trace etc.

V.A. Nasledn1k

Card 2/2

S/112/60/000/006/026/032

Translation from: Referativnyy zhurnal, Elektrotekhnika, 1960, No. 6, p. 428
6.4697

AUTHOR: Nemirova, E. K.

TITLE: Pulse Signal Distortion at a Resonant Reflection From Meteor Trains

PERIODICAL: Izv. Tomskogo politekhn. in-ta, 1958, No. 86, pp. 150-162

TEXT: The author discusses briefly the principal conclusions of the Kayser and Kloss's theory on the resonant reflection of radar signals from a column of ionized gas which is formed in the atmosphere during the passage of a meteoric body. Frequency characteristics of the meteor train are considered. A calculation of resonance characteristics for the ionized gas column in a form of a homogeneous cylinder with sharply outlined boundaries is given. The dependence of the reflection coefficient of columns for heterogeneous cylinders with various forms of electron density distribution along the radius is explained. From an analysis of frequency characteristics of the column the shape of the reflected signal is found. The author considers the transient process when a single square jump of the sine voltage envelope is reflected from a homogeneous cylinder.

Card 1/1

A. V. M.

23703

S/035/61/000/004/034/038
A001/A101

9.9600

AUTHOR: Nemirova, E.K.

TITLE: Polarization effect at reflection of radio waves from meteoric trails (influence on duration of reflection)

PERIODICAL: Referativnyy zhurnal, Astronomiya i Geodeziya, no. 4, 1961, 54-55, abstract 4A441 ("Byul. In-ta astrofiz. AN TadzhSSR", 1959, no. 27, 17-24)

TEXT: On the basis of the known theory of resonance reflection from meteoric trails of radio waves with transverse polarization of electric vector (RZhAstr, 1958, no. 8, 5060), the author considers the effect of resonance on duration of reflection and on measurements of diffusion coefficient. Taking into account the parabolic shape of the meteoric trail, the formula is derived for duration of reflection (time of reducing the signal amplitude by 1 times):

$$\tau_1 = \tau (1 - \ln \rho_{1Max}),$$

where τ is duration of reflection for radio waves with parallel polarization; ρ_{1Max} is polarization ratio for maximum amplitudes depending on the length of the

Card 1/2

B/035/61/000/004/034/038
A001/A101

Polarization effect ...

trail section undergoing resonance. When diffusion coefficient D is determined on the basis of conventional formulae, which do not take into account the resonance effect, its value proves to be overestimated

$$\delta D = \frac{\ln \rho_{1Max}}{1 - \ln \rho_{1Max}} .$$

Errors in determining D can attain 100%. Many graphs are presented which illustrate the results of calculations. There are 5 references.

V. Lebedinets

[Abstracter's note: Complete translation]

3(1)

AUTHOR: Nemirova, E.K. SOV/33-36-2-25/27

TITLE: Some Results of Preliminary Observations of Resonance Scattering by Meteor Trails

PERIODICAL: Astronomicheskiy zhurnal,1959,Vol 36,Nr 2,pp 377-379 (USSR)

ABSTRACT: At the Tomsk Polytechnical Institute special observations have been carried out for an investigation of the influence of resonance, during the scattering of radio waves by meteor trails, on the exactness in the determination of some meteor characteristics. In the present note the author presents some results of preliminary observations.
There are 1 figure, 2 tables, and 2 references, 1 of which is Soviet, and 1 English.

ASSOCIATION: Tomskiy politekhnicheskiy institut (Tomsk Polytechnical Institute)

SUBMITTED: June 20, 1958

Card 1/1

3(1) 10

AUTHOR: Nemirova, E.K.

TITLE: On the Role of the Resonance Effects for the Measurement of Meteor Velocities

SOV/33-36-3-13/29

PERIODICAL: Astronomicheskiy zhurnal, 1959, Vol 36, Nr 3, pp 481-486 (USSR)

ABSTRACT: The author considers the resonance scattering of radio waves by meteor trails. The calculations show that the resonance influences not only the variation of the intensity of the reflecting signal but also causes a timely displacement of the diffraction curves and a change of the periods and depth of pulsation, whereby there arises an essential error in the determination of the meteor velocity. Since the resonance only appears under very special assumtions, the author proposes to eliminate the error by a static treatment of the results of measurement. The author thanks G.A.Zhitkova for the aid during the calculations.
There are 7 figures, and 6 non-Soviet references, of which 1 is English, 1 German, 1 Swedish, and 3 American.

ASSOCIATION: Tomskiy politekhnicheskiy institut imeni S.M.Kirova (Tomsk Polytechnical Institute imeni S.M.Kirov)

SUBMITTED: September 6, 1957

Card 1/1

22098
S/035/61/000/003/012/048
A001/A101

6,4700

AUTHOR: Nemirova, E.K.

TITLE: The polarization effect at reflection of radio waves from meteoric trails

PERIODICAL: Referativnyy zhurnal. Astronomiya i Geodeziya, no. 3, 1961, 49, abstract 3A427 ("Tr. Sibirsk. fiz.-teknn. in-ta pri Tomskon un-te", 1959, no. 37, 247 - 260)

TEXT: The author considers specific features of resonance scattering of radio waves in a case of a parabolic meteor trail. She estimates the resorance effect on the shape of diffraction pattern while measuring the speeds of meteors. It is pointed out that distortion degree of diffraction pattern increases with increasing wavelength and electronic density. Resonance effects are taken into account in measuring diffusion coefficient in meteor trails in a case of cylindrical trail. The conclusion is drawn that measurements of diffusion coefficient must be conducted on trails with a sufficiently high linear electronic density and a sufficiently small angles between the trail axis and the electric field vector. There are 12 references.

V. Naslednik

[Abstracter's note: Complete translation]

Card 1/1

22096

S/03[illegible]/000/003/023/048
A001/A101

6,4700

AUTHORS: Nemirova, E.K., Peregudov, F.I.

TITLE: The radar station of TPI-1 for investigations of meteoric trails

PERIODICAL: Referativnyy zhurnal. Astronomiya i Geodeziya, no. 3, 1961, 49, abstract 3A425 ("Sb. Sibirsk. fiz.-tekhn. in-ta pri Tomskom un-te", 1959, no. 37, 280 - 290)

TEXT: The authors present the block-diagram and describe the operation of main units of a meteor radar station constructed by a team of the Tomsk Polytechnical Institute. The station operates at a wavelength of λ = 10 m and has the following parameters: pulse power $\sim$ 100 kw, pulse duration = 5 μ sec, frequency of pulse repetition = 300 and 600 pulse/sec, actual sensitivity of the receiver $\sim 10^{-13}$ w, antennas are half-wave oscillators lifted to a height of $\lambda/3$ above the ground surface. Some results of meteor observations at this station are presented.

V. Naslednik

[Abstracter's note: Complete translation]

Card 1/1

NEMIROVA, E.K.

Errors in measuring the velocities of meteors by the method of spaced reception. Izv. TPI 105:41-44 '60. (MIRA 16:8)

1. Predstavleno nauchnym seminarom radiotekhnicheskogo fakul'teta Tomskogo ordena Trudovogo Krasnogo Znameni politekhnicheskogo instituta imeni Kirova.
(Meteors) (Radar in astronomy)

43284

S/831/62/000/008/005/016
E192/E382

3.2440

AUTHORS: Fialko, Ye.I., Peregudov, F.I., Nemirova, E.K., Pokrovskiy, L.A.

TITLE: Radar observations on meteors at Tomsk

SOURCE: Ionosfernyye issledovaniya (meteory). Sbornik statey, no.8. V razdel programmy MGG (ionosfera). Mezhduved. geofiz. kom. AN SSSR. Moscow, Izd-vo AN SSSR, 1962, 41-44

TEXT: Systematic radar observations of meteors at Tomskiy politekhnicheskiy institut im. S.M.Kirova (Tomsk Polytechnical Institute imeni S.M.Kirov) have been conducted as part of the IGY program. Special equipment, type ТПИ-2 (TPI-2), with wavelength of 10 m, pulse power 100 kW, pulse-duration 5 μs and pulsing frequency 600 cps, was used. Between July and December 1957, the overall observation time was 602 hours, during which 135000 reflections were observed. Between January and June 1958, the total observation time was 541 hours and the number of recorded reflections was 46000. The average number of recorded meteors per hour was $\bar{N} \cong 160$ but the average for various days deviated

Card 1/3

Radar observations on ...

considerably from $\overline{N}$. An idea of the daily variation of the meteor activity can be obtained from Fig.1, which shows N as a function of the time of the day. The distribution of time intervals between neighbouring meteor reflections can be approximated by an exponential law which confirms the random character of the appearance of meteors in the atmosphere. The distribution of the echo durations obeys an inverse proportional law, as can be seen from Fig.4. The drift velocity of the meteors varies from 0 to 50 m/s, the average being 25 m/s. About one-third of the meteors produced a resonance effect. There are 5 figures.

Fig.1.

Card 2/3

43285

S/831/62/000/008/006/016
E192/E382

4.4731

AUTHORS: Fialko, Ye.I., Peregudov, F.I., Nemirova, E.K., Zubarev, G.S., Zolotarev, I.D. and Pokrovskiy, L.A.

TITLE: Radar equipment for meteor observations at Tomsk

SOURCE: Ionosfernyye issledovaniya (meteory). Sbornik statey, no. 8. V razdel programmy MGG (ionosfera). Mezhduved. geofiz. kom. AN SSSR. Moscow, Izd-vo AN SSSR, 1962, 45 - 50

TEXT: Radar equipment, type ТПИ-2 (TPI-2), has been used for meteor observations at Tomsk since May, 1957. Apart from that, additional equipment, type M-3, was designed and built for operating at the wavelength of 4 m. The TPI-2 equipment operates at the wavelength of 10 m and permits determination of the range of a meteor track, its velocity and the radial component of the drift velocity of the track. The pulse-power of the radar transmitter is 100 kW, pulse duration 5 μs, pulsing frequency 600 c.p.s. (each alternate pulse being doubled) and its maximum range is 400 km. The sensitivity of the receiver is 10^{-13} W, the antenna being in the form of a half-wave dipole situated at a height of $\lambda/3$ above the

Card 1/4

Radar equipment 5/831/62/000/008/006/016
E192/E382

Earth. The transmitter equipment consists of: 1 - an excitation unit; 2 - high-frequency unit; 3 - output stage; 4 - modulator; 5 - rectifier circuit; 6 - sub-modulator unit; 7 - rectifier unit for 800 V; 8 - rectifier unit for 1 250 V; 9 - rectifier unit for 4 kV; 10 - high-voltage rectifier for 10 kW; 11 - control unit; 12 - rectifier circuits for 250 V and 2 kV; 13 - control panel and 14 - magnetic stabilizer. The transmitter employs a number of power-amplification stages, the output stage being capable of giving 100 kW pulse output. All the transmitter stages, except the quartz stabilized driver oscillator, operate under pulse conditions. The excitation unit consists of the driver, a buffer amplifier, power amplifier, tripler and a "coherent" voltage stage. The driver generates a frequency of 5 Mc/s and its anode circuit is tuned to 10 Mc/s. The buffer amplifier operates without grid currents and the following amplifier stage operates in class C; the tripler produces a frequency of 30 Mc/s and this is fed to the high-frequency unit consisting of two power stages. The modulating equipment consists of a sub-modulator and a modulator, the sub-modulator being driven by anode pulses with a

Card 2/4

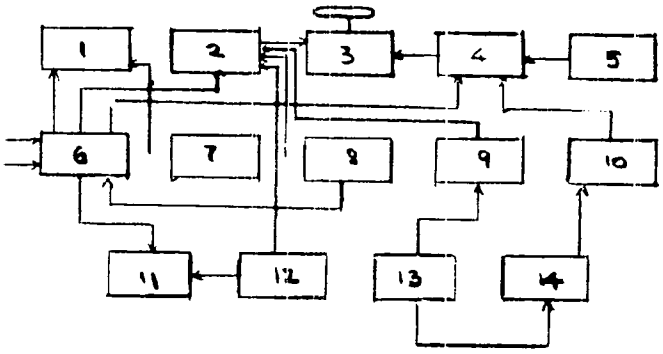
duration of 5 μs, the grid pulses having a duration of 7 μs or gating pulses of 50 to 70 μs duration. The modulator produces powerful output pulses in the output stage and is based on discharging a storage capacitance. The output pulses from the modulator transformer secondary is applied to the anodes of the output tubes. The receiver equipment comprises a device for coherent pulse reception, range-measuring devices for amplitude and brightness, meteor-velocity indicator, drift indicator, noise suppressor, a synchronizing device, a photo-synchronization unit, coherent-pulse drift indicator and power supplies. The meteors are recorded on a photographic film moving with a velocity of 3 cm/min; under special conditions this can be increased to 70 cm/min. The range-indicator is used for visual observation of the reflected signals. The velocity of meteors is measured by the diffraction-pulse method (J.G.Davies, C.D.Ellyett. Philos. Mag., ser.7, v.40, no.305, 1949), the time-base being triggered by the signal reflected from the meteor. The equipment M-3 operates at a wavelength of 4 m and is used for recording the number, range and duration of meteor reflections. The equipment

S/831/62/000/008/006/016
E192/5382

Radar equipment ....

has a pulse power of 100 kW, repetition frequency of 600 cps and pulse-duration of 3 us; it is furnished with a half-wave dipole antenna situated at a height of λ/3 above the Earth and a Yagi-type directional antenna.

Fig.1.



Card 4/4

L 16849-63 [illegible](1)/FCC(w)/[illegible]/[illegible]-2/[illegible](v) AFFTC/[illegible]-3 Pe-4 PT-2/GW

ACCESSION NR: AR3006334 S/0058/63/000/007/E043/E044

72

SOURCE: RZh. Fizika, Abs. 7Zh299

AUTHOR: Fialko, Ye. I.; Parasuody, F. I.; [illegible], E. K.; Sera-finovich, L. F.; Pokrovskiy, L. A.; Zolotarev, I. D.; Zubarev, G. S.

TITLE: Some results of radar observations of meteors in Tomsk during 1957-1959

CITED SOURCE: Izv. Tomskogo politekhn. in-ta, v. 100, 16-19 — 1962

TOPIC TAGS: meteor, radio observation, sporadic meteor, regular meteor, Quadrantide meteor

TRANSLATION: A summary is presented of radar observations made in the city of Tomsk in 1957--1958 using the TPI-2 meteor radar station. The parameters of the apparatus are: frequency 30 Mcs, power ~100 kW pulse, pulse duration 5 microseconds, transmission frequency

Card 1/2

L 16849-63

ACCESSION NR: AR3006334

600 pulses/sec. transmission and reception with half-wavelength dipoles located at a height $\lambda/3$ above the earth, receiver sensitivity ~5 x 10^{-14} W. The changes in the activity of the sporadic and regular-flow meteors were investigated. Altogether 130,000 reflections were registered in 1957 and 191,500 in 1958. Information is presented on the average course of the external noise, the distribution of the heights of the Quadrantide meteors (from the data of 4--5 January 1959) and of sporadic meteors. V. M.

DATE ACQ: 15Aug63 SUB CODE: PH, AS ENCL: 00

Card 2/2

ACCESSION NR: AR3010553 S/0058/63/000/009/H045/H045

SOURCE: RZh. Fizika, Abs. 9Zh287

AUTHOR: Nemirova, E. K.

TITLE: Character of meteor radio echoes in observations of the resonance effect at 10 meter wavelength

CITED SOURCE: Izv. Tomskogo politekhn. in-ta, v. 100, 1962, 35-40

TOPIC TAGS: meteor radio echoes, resonance effect, plasma resonance, diffraction pattern, polarization

TRANSLATION: Observations of the polarization effect at a wavelength of 10 meters have shown the following: 1) Plasma resonance can exist at 10 meter wavelength. 2) Resonance causes distortion of the diffraction pattern; the calculated variation of the distortion is confirmed by experiments. 3) In many cases the polarization

Card 1/2

ACCESSION NR: AR3010553

effect is observed also in stable meteor tracks.

DATE ACQ: 14Oct63 SUB CODE: GE, AS ENCL: 00

Card 2/2